C.   REMARKS

Status of the Claims

Claims 1-7, 9-16, 18-25, and 27 are currently present in the Application, and claims 1, 10, and 19 are independent claims.   Claims 1, 4, 10, 13, 19, and 22 have been amended, claims 8, 17, and 26 have been cancelled, and no claims have been added.

Examiner Interview

Applicants note with appreciation the telephonic interview conducted between Applicants' representative and the Examiner on March 23, 2006.   During the telephonic interview, the Examiner and Applicants' representative discussed the 102 reference (Fargher et al., U.S. Patent No. 5,586,021).   In particular, Applicants' representative discussed that Applicants' invention provides a research mode that uses automated input to generate a resource plan through discrete event systems simulation, which is not taught or suggested by Fargher.   No agreement was reached regarding the claims.

Drawings

Applicants note with appreciation the Examiner's acceptance of Applicants' formal drawings filed concurrently with the application.

Claim Rejections - Alleged Anticipation Under 35 U.S.C. § 102

Claims 1-3, 5-12, 14-21, and 23-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Fargher et al. (U.S. Patent No. 5,586,021, hereinafter "Fargher").   Applicants respectfully traverse these rejections.

Applicants have incorporated the limitations of claims 8, 17, and 26 into their respective claims in this response. As a result, claims 8, 17, and 26 have been canceled, and the rejection to these claims is moot.

As amended, Applicants' independent claims are directed to managing resources with limitations comprising:

- receiving one or more buffer variables and one or more endogenous variables;
- determining one or more exogenous variables; and
- simulating one or more resource requirements using the buffer variables, the endogenous variables, and the exogenous variables, wherein the simulating further comprises:
  - performing discrete event systems simulation using one or more pseudo-random numbers.

Applicants simulate resource requirements by performing discrete event systems simulation, which uses <u>one or more pseudo-random numbers</u>. Support for this added limitation is found in Applicants' specification on page 19, lines 6-10, which states:

> "Discrete event systems simulation uses pseudo-random numbers drawn from the uniform, normal, discrete, triangular, beta, and rayleigh distributions to simulate variability in demand and supply."

In contrast, Fargher does not teach using discrete event systems simulation as claimed by Applicants. Rather, Fargher states:

> "The planning search algorithm uses a work representation in which wafer processing <u>is divided into discrete segments</u>, where each segment represents processing on resources which may be completed within one time interval of the plan representation…The search algorithm uses a **modified beam search with**

chronological back-tracking." (col. 9, lines 51-66, emphasis added).

As can be seen from the above excerpt, Fargher's algorithm uses a modified beam search with chronological back-tracking, which is different than Applicants' discrete event systems simulation. Furthermore, Fargher does not teach using one or more **pseudo-random** numbers during the simulation as claimed by Applicants. Rather, Fargher states:

"The plan representation must ideally also be able to model the uncertainty inherent in work cycle-times… The first is wafer yield, which is recorded as the **probability** of manufacturing a number of good chips given the starting number. The second is cycle time, which is recorded as the **probability** of completing all manufacturing steps on a wafer in a given time." (col. 10, line 59-col. 11, line 3, emphasis added)

As can be seen from the above excerpt, Fargher uses probability numbers during resource requirements simulation, which is different than using pseudo-random numbers as claimed by Applicants. Therefore, since Fargher does not teach all the limitations included in Applicants' claim 1 as amended, amended claim 1 is allowable over Fargher.

Claim 10 as amended is an information handling claim including the same limitations of amended claim 1 and, therefore, is allowable for the same reasons as claim 1 is allowable. Claim 19 as amended is a computer program product claim including the same limitations of amended claim 1 and, therefore, is allowable for the same reasons as claim 1 is allowable.

Each of the remaining claims 2-3, 5-7, 9, 11-12, 14-16, 18, 20-21, 23-25, and 27 each depend, directly or indirectly, upon one of the allowable independent claims 1, 10, and 19. Therefore, claims 2-3, 5-7, 9, 11-12, 14-16, 18, 20-21, 23-25,

and 27 are each allowable for the same reasons as their respective independent claims.

Claim Rejections - Alleged Obviousness Under 35 U.S.C. § 103

Claims 4, 13, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fargher. Applicants respectfully traverse these rejections.

Notwithstanding the fact that claim 4 is indirectly dependent upon claim 1 and, therefore, is allowable for at least the same reasons as claim 1 is allowable as discussed above, claim 4 adds limitations to claim 1 of:

- wherein the simulation mode is a research mode, which uses an automatic input that includes one or more values, one or more formulas, and one or more rules.

Applicants' invention includes three distinct modes, which are a research mode, a learning mode, and a decision support mode. Applicants' research mode does not depend upon user input, but rather receives automatic input that "provides various values, formulas, and rules to evaluate in simulation to determine the effectiveness of the values, formulas, and rules in managing capacity under both normal and extreme conditions" (specification, page 9, lines 9-13), which is not taught or suggested by Fargher.

Therefore, since Fargher does not teach all the limitations included in Applicants claim 4 as amended, amended claim 4 is allowable over Fargher. Claim 13 as amended is an information handling claim including the same limitations of amended claim 4 and, therefore, is allowable for the same reasons as claim 4 is allowable. Claim 22 as amended is a computer program product
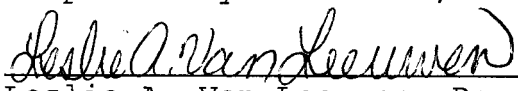
claim including the same limitations of amended claim 4 and, therefore, is allowable for the same reasons as claim 4 is allowable.

Conclusion

As a result of the foregoing, it is asserted by Applicants that the remaining claims in the Application are in condition for allowance, and Applicants respectfully request an early allowance of such claims.

Applicants respectfully request that the Examiner contact the Applicants' attorney listed below if the Examiner believes that such a discussion would be helpful in resolving any remaining questions or issues related to this Application.

Respectfully submitted,

By _Leslie A. Van Leeuwen_

Leslie A. Van Leeuwen, Reg. No. 42,196
Van Leeuwen & Van Leeuwen
Attorney for Applicants
Telephone: (512) 301-6738
Facsimile: (512) 301-6742